

## WHAT IS CLAIMED IS:

1. A power amplifier comprising:
  - a field effect transistor,
  - a bias voltage supply terminal supplied with a
  - 5 bias voltage,
  - a reference potential,
  - a first resistance element, and
  - a second resistance element with a temperature
  - coefficient smaller than that of the first resistance
  - 10 element, wherein
    - a first terminal of the first resistance
    - element and a first terminal of the second resistance
    - element are connected and the connection point of those
    - terminals is connected to a gate terminal of the field
    - 15 effect transistor,
    - a second terminal of the first resistance
    - element is connected to the bias voltage supply terminal,
    - a second terminal of the second resistance
    - element is connected to the reference potential, and
    - 20 the field effect transistor and the first
    - resistance element are semiconductor devices formed on
    - the same semiconductor substrate.
2. A power amplifier as set forth in claim 1,
- wherein a resistance value of the second resistance
- 25 element is variable.

3. A power amplifier comprising:  
a field effect transistor,  
a bias voltage supply terminal supplied with a  
bias voltage,  
5 a reference potential,  
a first resistance element,  
a second resistance element, and  
a third resistance element with a temperature  
coefficient smaller than those of the first resistance  
10 element and the second resistance element, wherein  
a first terminal of the first resistance  
element and a first terminal of the second resistance  
element are connected and the connection point of those  
terminals is connected to a gate terminal of the field  
15 effect transistor,  
a second terminal of the second resistance  
element is connected to a first terminal of the third  
resistance element,  
a second terminal of the first resistance  
20 element is connected to the bias voltage supply terminal,  
a second terminal of the third resistance  
element is connected to the reference voltage, and  
the field effect transistor, the first  
resistance element, and the second resistance element are  
25 semiconductor devices formed on the same semiconductor

substrate.

4. A power amplifier as set forth in claim 3, wherein a resistance value of the third resistance element is variable.

5 5. A power amplifier comprising;  
a field effect transistor,  
a bias voltage supply terminal supplied with a bias voltage,

a reference potential,  
10 a first resistance element,  
a second resistance with a temperature coefficient smaller than that of the first resistance element, and

a third resistance element with a temperature  
15 coefficient smaller than that of the first resistance element, wherein

a first terminal of the first resistance element and a first terminal of the second resistance element are connected,

20 a second terminal of the second resistance element and a first terminal of the third resistance element are connected,

a connection point of those terminals is connected to a gate terminal of the field effect  
25 transistor.

a second terminal of the first resistance element is connected to the bias voltage supply terminal,

a second terminal of the third resistance element is connected to the reference potential, and

5           the field effect transistor and the first resistance element are semiconductor devices formed on the same semiconductor substrate.

6. A power amplifier as set forth in claim 5, wherein a resistance value of the third resistance  
10 element is variable.